

**COMBINED DECLARATION / POWER OF ATTORNEY**

AS BELOW NAMED INVENTOR, I HEREBY DECLARE THAT: This Declaration is of the following type:

- ☒ Original      ☐ Supplemental      ☐ Continuation-In-Part      ☐ Divisional  
☐ Continuation      ☐ National Stage of PCT

My residence, post office address and citizenship are as stated below next to my name: I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention **PILOT ESTIMATION USING PREDICTION ERROR METHOD-SWITCHED FILTERS**, the specification of which:

- ☐ is attached hereto.  
☒ was filed on August 18, 2003 as Serial No. 10/643,639.  
☐ was amended on \_\_\_\_\_ (if applicable).  
☐ was described and claimed in PCT International Application No. \_\_\_\_\_ filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Sec. 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, Sec. 119 of any foreign application(s) for patent or inventor's certificate or of any PCT International application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT International application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

			Priority Claimed	
(Country)	(Application No.)	(Day/Month/Year/Filed)	(Yes)	(No)

I hereby claim the benefit under Title 35 USC 119(e) of any United States provisional application(s) listed below:

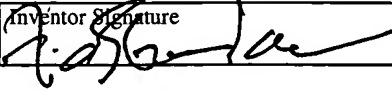
(Serial No.)	(Filing Date)
60/454,378	March 12, 2003

I hereby claim the benefit under Title 35 USC 120 of the United States application(s) listed below, and insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35 USC 112, I acknowledge the duty to disclose material information as defined in Title 37 CFR 1.56(a) which occurred between the filing date of the prior application and the national or PCT International filing date of this application:

(Serial No.)	(Filing Date)	(Status)
--------------	---------------	----------

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith: Russell B. Miller, Reg. No. 31,122, Gregory D. Ogrod, Reg. No. 30,880, Bruce W. Greenhaus, Reg. No. 37,339, Charles D. Brown, Reg. No. 28,285, Thomas R. Rouse, Reg. No. 40,793, Kent D. Baker, Reg. No. 38,822, Thomas M. Thibault, Reg. No. 42,181, Christopher O. Edwards, Reg. No. 36,127, Pavel Kalousek, Reg. No. 44,178, Kyong H. Macek, Reg. No. 42,977, Byron Yafuso, Reg. No. 45,244, Sean English, Reg. No. 37,319, Roger W. Martin, Reg. No. 39,291, Sandip S. Minhas, Reg. No. 44,945, Michael D. Hartogs, Reg. No. 36,547, Philip R. Wadsworth, Reg. No. 29,219, S. Hossain Beladi, Reg. No. 42,311, Albert J. Harnois, Reg. No. 46,123, Sandra L. Godsey, Reg. No. 42,589, George C. Pappas, Reg. No. 35,065, Abdollah Katbab, Reg. No. 45,325, Robert J. O'Connell, Reg. No. 44,265, William Marcus Hooks, Reg. No. 48,857, Howard Seo, Reg. No. 43,106, Jaë-Hee Choi, Reg. No. 45,288, Donald C. Kordich, Reg. No. 38,213, Kevin T. Cheatham, Reg. No. 48,766, Nick J. Pauley, Reg. No. 44,999, Thien T. Nguyen, Reg. No. 43,835, Michæl D. Graham, Reg. No. 51,751, George J. Oehling, Reg. No. 40,471, Lee Hsu, Reg. No. 39,716, Dean Tricarico, Reg. No. 53,703 and Rupit Patel, Reg. No. 53,441. Please direct all telephone calls to Philip R. Wadsworth at (858) 651-4404 and address all correspondence to: QUALCOMM Incorporated, Patent Department, 5775 Morehouse Drive, San Diego, California 92121-1714 (PTO Customer No. 23696).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of First or Joint Inventor <b>Farrokh Abrishamkar</b>	Inventor Signature 	Date <b>Feb 2/2004</b>
Residence <b>5218 Sandhill Terrace, San Diego, CA 92130</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>5218 Sandhill Terrace, San Diego, CA 92130</b>		

Full Name of Second or Joint Inventor <b>Kartik B. Ariyur</b>	Inventor Signature	Date
Residence <b>10551 Greenbriar Road, Apt. 309, Minnetonkia, MN 55305</b>	Citizenship <b>India</b>	
Post Office Address <b>10551 Greenbriar Road, Apt. 309, Minnetonkia, MN 55305</b>		

Full Name of Third or Joint Inventor <b>Kenneth Kreutz-Delgado</b>	Inventor Signature	Date
Residence <b>4239 Pilon Point, San Diego, CA 92130</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>4239 Pilon Point, San Diego, CA 92130</b>		

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of First or Joint Inventor <b>Farrokh Abrishamkar</b>	Inventor Signature	Date
Residence <b>5218 Sandhill Terrace, San Diego, CA 92130</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>5218 Sandhill Terrace, San Diego, CA 92130</b>		

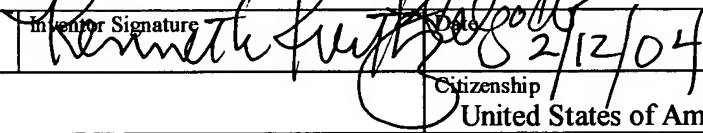
Full Name of Second or Joint Inventor <b>Kartik B. Ariyur</b>	Inventor Signature <i>A-B-Kartik</i>	Date <b>02/03/2004</b>
Residence <b>10551 Greenbrier Road, Apt. 309, Minnetonka, MN 55305</b>	Citizenship <b>India</b>	
Post Office Address <b>10551 Greenbrier Road, Apt. 309, Minnetonka, MN 55305</b>		

Full Name of Third or Joint Inventor <b>Kenneth Kreutz-Delgado</b>	Inventor Signature	Date
Residence <b>4239 Pilon Point, San Diego, CA 92130</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>4239 Pilon Point, San Diego, CA 92130</b>		

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of First or Joint Inventor <b>Farrokh Abrishamkar</b>	Inventor Signature	Date
Residence <b>5218 Sandhill Terrace, San Diego, CA 92130</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>5218 Sandhill Terrace, San Diego, CA 92130</b>		

Full Name of Second or Joint Inventor <b>Kartik B. Ariyur</b>	Inventor Signature	Date
Residence <b>9250-F Regents Road, La Jolla, CA 92307</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>9250-F Regents Road, La Jolla, CA 92307</b>		

Full Name of Third or Joint Inventor <b>Kenneth Kreutz-Delgado</b>	Inventor Signature 	Date <b>2/12/04</b>
Residence <b>4239 Pilon Point, San Diego, CA 92130</b>	Citizenship <b>United States of America</b>	
Post Office Address <b>4239 Pilon Point, San Diego, CA 92130</b>		

**ASSIGNMENT**

**COPY**

TO WHOM IT MAY CONCERN:

For the sum of One Dollar and other valuable consideration to us in hand paid, receipt of which is hereby acknowledged, be it known that we **Farrokh Abrishamkar**, a citizen of the United States of America having a place of residence at 5218 Sandhill Terrace, San Diego, CA 92130, **Kartik B. Ariyur**, a citizen of the United States of America having a place of residence at 9250-F Regents Road, La Jolla, CA 92307, and **Kenneth Kreutz-Delgado**, a citizen of the United States of America having a place of residence at 4239 Pilon Point, San Diego, CA 92130, have sold, assigned and transferred and by these presents do sell, assign, transfer and set over unto **QUALCOMM Incorporated**, a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, its successors, legal representatives, or assigns, the whole right, title and interest in and to a certain invention relating to: **PILOT ESTIMATION USING PREDICTION ERROR METHOD-SWITCHED FILTERS** by us devised and the application for United States Patent therefor filed in the United States Patent and Trademark Office on **August 18, 2003**, and assigned Serial No. **10/643,639**, including, without limitation, all provisional patent applications, including Serial No. 60/454,378, filed March 12, 2003, and all original and reissue patents granted thereof, and all divisions, and continuations thereof, including the subject matter of any and all claims which may be obtained in every such patent, and all foreign rights to said invention, and covenant that we have full right to do so, and agree that we will communicate to said corporation or its representatives all facts known to us respecting said invention, whenever requested, and testify in any legal proceedings, sign all lawful papers, make all rightful oaths and generally do everything possible to aid said corporation, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this \_\_\_\_ day of \_\_\_\_\_, 2004.



**Farrokh Abrishamkar**

Done at San Diego, California this 9 day of Feb., 2004.

---

**Kartik B. Ariyur**

Done at San Diego, California this \_\_\_\_ day of \_\_\_\_\_, 2004.

---

**Kenneth Kreutz-Delgado**

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this \_\_\_\_ day of \_\_\_\_\_, 2004.

---

**Farrokh Abrishamkar**

Done at Minnetonka, Minnesota this 3<sup>rd</sup> day of February, 2004.

A. B. Kartik  

---

**Kartik B. Ariyur**

Done at San Diego, California this \_\_\_\_ day of \_\_\_\_\_, 2004.

---

**Kenneth Kreutz-Delgado**

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at San Diego, California this \_\_\_\_ day of \_\_\_\_\_, 2004.

---

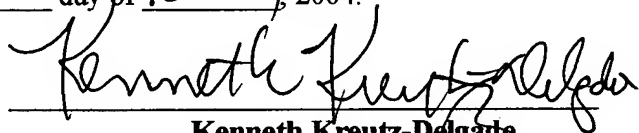
**Farrokh Abrishamkar**

Done at San Diego, California this \_\_\_\_ day of \_\_\_\_\_, 2004.

---

**Kartik B. Ariyur**

Done at San Diego, California this 12 day of February, 2004.

---

**Kenneth Kreutz-Delgado**